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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,534	02/25/2004	Nicolai Tarasinski	09163-US	3254
30689	7590	08/29/2006	EXAMINER	
DEERE & COMPANY ONE JOHN DEERE PLACE MOLINE, IL 61265			LE, DAVID D	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 08/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/786,534

Applicant(s)

TARASINSKI, NICOLAI

Examiner

David D. Le

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,9-11,16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) 16 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 9-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This is the third Office action on the merits of Application No. 10/786,534, filed on 25 February 2004. Claims 1, 2, 4, 5, 9-11, 16 and 18 are pending. Of those pending claims, claims 16 and 18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species.

Documents

2. The following documents have been received and filed as part of the patent application:

- Information Disclosure Statement, received on 02/25/04
- Foreign Priority Document, received on 02/25/04
- Declaration and Power of Attorney, received on 05/27/04
- Information Disclosure Statements, received on 02/07/05

Claim Objections

3. Claim 1 is objected to because of the following informalities:

- Lines 2-3, "or industrial utility vehicle comprising" should be amended as --or industrial utility vehicle, comprising--.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1, 2, 4, 5 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 6,383,106 to Kashiwase.**

Claims 1, 2, 4, 5 and 9:

Kashiwase (i.e., Figs. 1-9; column 2, line 61 – column 7, line 19) discloses a power transmitting system for a hybrid vehicle comprising:

- A planetary gearbox (i.e., Fig. 1, element 3);
- A first motor/generator (i.e., Fig. 1, element 4);
- An internal combustion engine (i.e., Fig. 1, element 1);
- A power take-off shaft (i.e., Fig. 1, element 5a), which is capable of driving an attached implement;
- A first gearbox interface (i.e., Fig. 1, being the portion of shaft 1a that connects with sun gear 3a of the planetary gearbox) being driven by said engine;
- A second gearbox interface (i.e., Fig. 1, being the shaft portion of said first motor 4 that connects with ring gear 3c of said planetary gearbox);
- A third gearbox interface (i.e., Fig. 1, being the portion of carrier 3b that connects with said power take-off shaft 5a);
- A second motor/generator (i.e., Fig. 1, element 2) driven directly by the internal combustion engine (1);
- A control arrangement (i.e., Fig. 1, element 10);
- Wherein said hybrid vehicle inherently includes a wheel brake for stopping said power take-off shaft (5a) (i.e., column 3, lines 37-48);

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- Wherein said power transmitting system inherently includes a rectifier, which is associated with each of said first and second motor/generator (i.e., column 4, lines 46-52);
- Wherein the control arrangement inherently uses various sensors to control the engine, the first motor/generator, the second motor/generator, the rectifiers, and the wheel brake (i.e., column 3, line 31 – column 6, line 50); and
- Wherein the planetary gearbox (i.e., Fig. 1, element 3) is considered as a torque division gearbox for the power take-off shaft.

Note:

It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

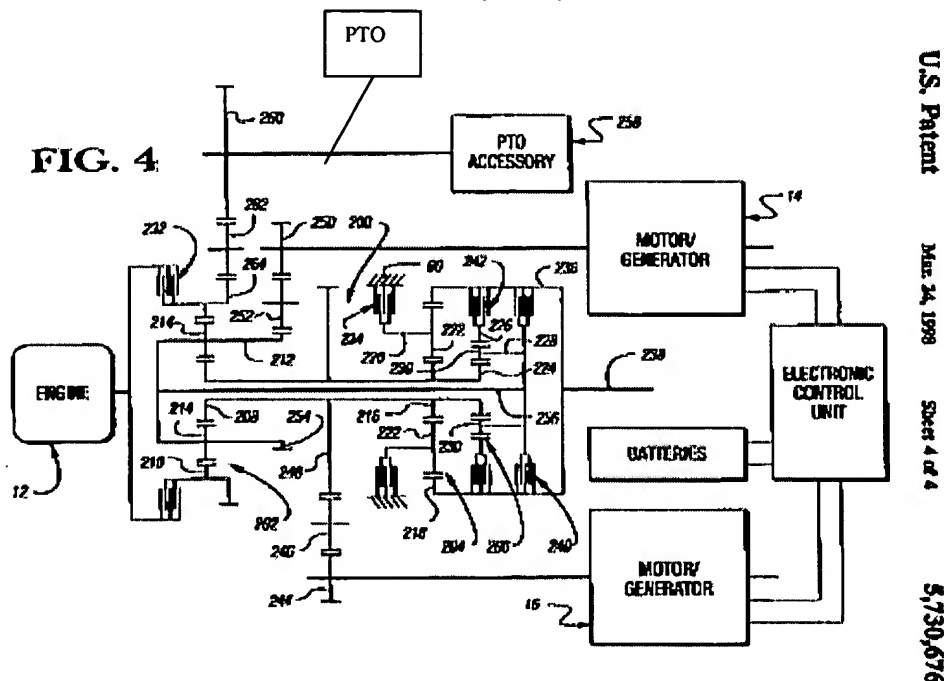
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1, 2, 4, 5 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 5,730,676 to Schmidt in view of U. S. Patent No. 6,205,385 to Stelzle et al.

Claims 1, 2, 4, 5 and 9-11:

Schmidt (i.e., Figs. 1-4; column 1, line 30 – column 7, line 54) discloses an electro-mechanical transmission comprising:



- A planetary combination gearbox (i.e., Fig. 4, element 202);
- A first electrical machine (i.e., Fig. 4, element 14);
- A power take-off shaft (i.e., Fig. 4, element PTO as indicated above);
- A gearbox interface (i.e., Fig. 4, element 248) operatively driven by an internal combustion engine (i.e., Fig. 4, element 12);
- A second electrical machine (i.e., Fig. 4, element 16) driven indirectly by the internal combustion engine (12);

- A control arrangement controlling the internal combustion engine, the first electrical machine, the second electrical machine and at least one rectifier (i.e., Fig. 4; column 5, line 29 – column 7, line 54; it should be understood that the ECU controls the engine output through controlling the engagement of clutch 232);
- Wherein the control arrangement inherently includes a rectifier associated with each of the first and second electrical machines so that each of the electrical machines can be switched in both directions of rotation and both directions of torque (i.e., column 2, line 63 – column 3, line 27);
- Wherein the first electrical machine is connected with a second gearbox interface (i.e., Fig. 4, element 212) of the planetary combination gearbox (202), and the power take-off shaft (PTO) is connected with a third gearbox interface (i.e., Fig. 4, element 264) of the planetary combination gearbox (202);
- Wherein the first and second electrical machines can be operated as generators or as motors (i.e., column 5, line 29 – column 6, line 57);
- Wherein the control arrangement inherently uses various sensors to control the engine, the first and second electrical machines and the rectifiers;
- Wherein the first electrical machine, the second electrical machine and the planetary combination gearbox can be combined to an infinitely variable torque division gearbox for the power take-off (i.e., Fig. 2) and;

- Wherein the second electric machine can be operated as a generator and the first electrical machine can be operated as an electric motor (i.e., column 6, lines 45-50).

Schmidt lacks a brake with which the power take-off shaft can be stopped.

Stelzle (i.e., Fig. 2; column 4, line 14 – column 5, line 2), on the other hand, teaches a control system for controlling a power takeoff comprising:

- An engine (i.e., Fig. 2, element 52);
- A power takeoff shaft (i.e., Fig. 2, element 18);
- A power takeoff clutch (i.e., Fig. 2, element 54);
- A power takeoff brake (i.e., Fig. 2, element 70); and
- A control arrangement (i.e., Fig. 2, element 50) for controlling the engagement of the power takeoff brake (70) to inhibit rotational motion of the power takeoff shaft.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Schmidt to include a power takeoff brake, in view of *Stelzle*, in order to effectively control the rotational motion of the power takeoff shaft.

Response to Arguments

8. Applicant's arguments filed on 11 August 2006 have been fully considered but they are not persuasive.

First, applicant argues that Kashiwase reference does not disclose the claimed power take-off shaft and the claimed power take-off shaft should be given the meaning in the art as a supplementary mechanism on a truck or tractor enabling the engine power to be used to operate nonautomotive apparatus. Examiner's position is that the shaft 5a of Kashiwase reference is capable of performing the intended use of delivering the power output to a load, and therefore, is readable as the claimed power take-off shaft under 35 U.S.C. 102 (b).

Second, applicant argues that Kashiwase reference does not disclose the motor 2 can be driven indirectly by the engine. It should be noted that the present claim 1 recites the limitation "a second electrical machine driven directly or indirectly by the internal combustion engine". Since the claimed recitation is written in alternative form and Kashiwase discloses the motor 2 driven directly by the engine, Kashiwase, therefore, meets the claimed limitation.

Accordingly, as set forth in paragraph 5 above, Kashiwase reference meets the claimed limitations.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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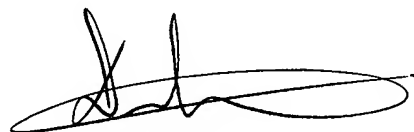
- Matsufuji (U. S. Patent No. 5,937,697) teaches a power take-off assembly for tractors, as shown in Fig. 2.
- Klinger et al. (U. S. Patent No. 6,045,485) teaches a circuit interfacing vehicle drivetrain, service brake, and power take-off with engine control, as shown in Fig. 2.
- Seipold (U. S. Patent Application Publication No. US 2006/0021455 A1) teaches a power takeoff assembly, as shown in the figure.
- Okamoto et al. (U. S. Patent Application Publication No. US 2004/0149462 A1) teaches a crawler tractor, as shown in Figs. 4 and 5.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David D. Le whose telephone number is 571-272-7092. The examiner can normally be reached on Mon-Fri (0700-1530).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on 571-272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'David D. Le', with a large, sweeping horizontal flourish extending to the right.

David D. Le
Examiner
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08/28/06

ddl